

### **Abstract**

**[0182]** Disclosed by the present invention is a system and method for optical fiber transmission. The switching portion of the present invention adopts the single-layered integrated switching technology so as to ensure a relatively simple and easy maintenance compared with the switching in a traditional communication network where said switching is made in the service network layer and the bearer network layer, respectively. Moreover, the present invention implements data transmission via optical fiber throughout the entire telecommunication system such that demands for bandwidth resources are satisfied during the whole data transmission process and the QoS (Quality of Service) of different services as well as rapid and un-blocking switching of the services are ensured in the telecommunication system. Therefore, the present invention can implement on-demand allocation of bandwidth resources, enhancing the flexibility in network resource management while a subscriber can apply for bandwidth resources based on its demand, which satisfies the individual needs of the user.